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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,589	07/02/2003	Sakae Suda	1232-5077	5542
27123	7590	07/28/2005	EXAMINER	
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			SHOSHO, CALLIE E	
			ART UNIT	PAPER NUMBER

1714

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/613,589

Applicant(s)

SUDA ET AL.

Examiner

Callie E. Shosho

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### **Double Patenting**

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

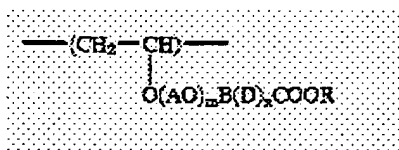
A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

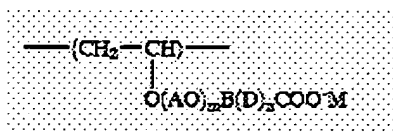
2. Claims 9-11 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 5, 7, and 9 of copending Application No. 10/422,537. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following explanation.

Copending 10/422,537 discloses ink comprising solvent, colorant, and polymer comprising monomers identical to that of presently claimed formula (1) wherein the polymer includes carboxylic acid residue COOR when R is hydrogen, carboxylic acid ester residue COOR when R is alkyl group, or carboxylic acid salt residue  $\text{COO}^+\text{M}^-$  at the end of the polymer. There is also disclosed image forming method comprising applying ink to substrate.

The difference between copending 10/422,537 and the present claimed invention is that the present claims broadly disclose that the polymer further comprise a residue selected from the group consisting of carboxylic acid, carboxylic acid ester, and carboxylic acid salt while the copending claims disclose that the polymer is obtained from monomer of the formula:



or



which clearly contain carboxylic acid residue COOR when R is hydrogen, carboxylic acid ester residue COOR when R is alkyl group, or carboxylic acid salt residue  $\text{COO}^+\text{M}^-$  at the end of the polymer. However, it would have been within the skill level of, as well as obvious to, one of ordinary skill in the art to recognize that the broad disclosure of the present claims encompasses

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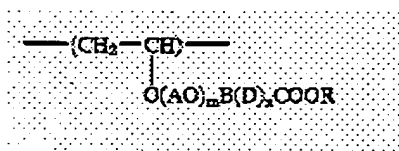
polymer wherein the residue is present anywhere in the polymer including at the end as disclosed in copending 10/422,537.

In light of the above, it therefore would have been obvious to one of ordinary skill in the art that the disclosure in copending 10/422,537 of polymer containing carboxylic acid, carboxylic acid ester, or carboxylic acid salt residue at the end of the polymer is a specific embodiment that falls within the broad disclosure of the present claims, and thus, one of ordinary skill in the art would have arrived at the present invention from the copending one.

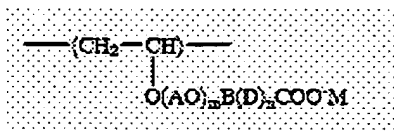
This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

3. Claims 1-2 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/422,537. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following explanation.

Copending 10/422,537 discloses composition comprising solvent and polymer comprising monomer of the formula:



or



which are identical to presently claimed monomer of formula (1).

The difference between copending 10/422,537 and the present claimed invention is (a) functional substance, (b) dispersible composition, and (c) present claims broadly disclose that the polymer further comprise a residue selected from the group consisting of carboxylic acid, carboxylic acid ester, and carboxylic acid salt while the copending claims disclose residue at the end of the polymer.

With respect to difference (a), copending 10/422,537 is silent with respect to functional substance.

Applicants' attention is drawn to MPEP 804 where it is disclosed that "the specification can always be used as a dictionary to learn the meaning of a term in a patent claim." *In re Boylan*, 392 F.2d 1017, 157 USPQ 370 (CCPA 1968). Further, those portions of the specification which provide support for the patent claims may also be examined and considered when addressing the issue of whether a claim in an application defines an obvious variation of an invention claimed in the patent. (underlining added by examiner for emphasis) *In re Vogel*, 422 F.2d 438, 164 USPQ 619,622 (CCPA 1970).

Consistent with the above underlined portion of the MPEP citation, attention is drawn to page 37, lines 20-25 of copending 10/422,537 which discloses that the composition does in fact

contain functional substance, i.e. colorant. It would have been obvious to one of ordinary skill in the art to add color to composition in order to produce composition with desired color depending on its end use.

With respect to difference (b), there is no disclosure in the copending claims that the composition is dispersible as presently claimed. However, given that copending 10/422,537 discloses composition comprising solvent and polymer identical to that presently claimed, it is clear that the composition would intrinsically be dispersible.

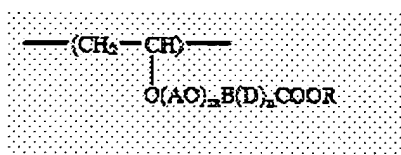
With respect to difference (c), it would have been within the skill level of, as well as obvious to, one of ordinary skill in the art to recognize that the broad disclosure of the present claims encompasses polymer wherein the residue is present anywhere in the polymer including at the end as disclosed in copending 10/422,537.

In light of the above, it therefore would have been obvious to one of ordinary skill in the art (i) to use colorant in the copending composition in order to produce composition with desired color depending on end use, (ii) that the copending composition is intrinsically dispersible, and (iii) that the disclosure of polymer containing carboxylic acid, carboxylic acid ester, or carboxylic acid salt residue at the end of the polymer is a specific embodiment that falls within the broad disclosure of the present claims, and thus, one of ordinary skill in the art would have arrived at the present invention from the copending one.

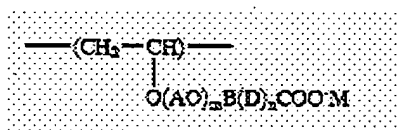
This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

4. Claim 12 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over either claim 18 or claim 20 of copending Application No. 10/422,537. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following explanation.

Copending 10/422,537 discloses block polymer comprising monomer of the formula:



or block polymer comprising monomer of the formula:



and thus, the block polymer of copending 10/422,537 discloses carboxylic acid residue COOR when R is hydrogen, carboxylic acid ester residue COOR when R is alkyl group, or carboxylic acid salt residue  $\text{COO}^-\text{M}^+$  at the end of the polymer.

The difference between copending 10/422,537 and the present claimed invention is that the present claims broadly disclose that the polymer further comprise a residue selected from the group consisting of carboxylic acid, carboxylic acid ester, and carboxylic acid salt while the copending claims disclose block polymer wherein the residue is at the end of the polymer.

However, it would have been within the skill level of, as well as obvious to, one of ordinary skill in the art to recognize that the broad disclosure of the present claims encompasses polymer



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wherein the residue is present anywhere in the polymer including at the end as disclosed in copending 10/422,537.

In light of the above, it therefore would have been obvious to one of ordinary skill in the art that the disclosure in copending 10/422,537 of polymer containing carboxylic acid, carboxylic acid ester, or carboxylic acid salt residue at the end of the polymer is a specific embodiment that falls within the broad disclosure of the present claims, and thus, one of ordinary skill in the art would have arrived at the present invention from the copending one.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

5. Claims 9-11 or claims 1-2 or claim 12 are directed to an invention not patentably distinct from claims 1, 5, 7, and 9 or claim 1 or claims 18 or 20, respectively, of commonly assigned 10/422,537. Specifically, although the conflicting claims are not identical they are not patentably distinct for the reasons given in paragraphs 2, 3, and 4 above.

6. The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP § 2302).

Commonly assigned 10/422,537, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting

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inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications filed on or after November 29, 1999.

7. Claims 9-11 and claims 1-2 and claim 12 are provisionally rejected under 35 U.S.C. 103(a) as being obvious over copending Application No. 10/422,537 which has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the copending application, it would constitute prior art under 35 U.S.C. 102(e) if published or patented. This provisional rejection under 35 U.S.C. 103(a) is based upon a presumption of future publication or patenting of the conflicting application. For an explanation of the rejections see paragraphs 2, 3, and 4 above.

This provisional rejection might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the copending application was derived from the inventor of this application and is thus not the invention "by another," or by a showing of a date of invention for the instant application prior to the effective U.S. filing date of the copending application under 37 CFR 1.131. This rejection might also be overcome by showing that the copending application is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

**Claim Rejections - 35 USC § 102**

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-2, 7, and 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 09-157653.

Pending formal translation and using a machine translation of the reference, it is noted that JP 09-157653 discloses dispersible composition comprising solvent, functional substance, i.e. dye, and polymer obtained from (i) monomer including phenyl vinyl ether which is identical to presently claimed formula (1) when m is 0, B is single bond, D is unsubstituted aromatic ring, and n is 1 and (ii) (meth)acrylic acid (abstract and paragraphs 1, 16, 25, 29, and 48).

In light of the above, it is clear that JP 09-157653 anticipates the present claims.

10. Claims 1-2 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Rao (U.S. 5,283,148).

Rao disclose liquid toner comprising solvent, functional substance, i.e. pigment, and polymer obtained from (i) monomer including phenyl vinyl ether which is identical to presently claimed formula (1) when m is 0, B is single bond, D is unsubstituted aromatic ring, and n is 1

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and (ii) fluorinated (meth)acrylate (col.1, lines 6-7, col.2, lines 21-32 and 46-56, col.4, line 68, col.5, lines 58-61, and col.6, lines 4-31).

In light of the above, it is clear that Rao anticipates the present claims.

11. Claims 1 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Schimmel et al. (U.S. 5,585,427).

Schimmel et al. disclose coating comprising pigment dispersion comprising solvent, functional substance, i.e. pigment, and copolymer obtained from monomer of the formula  $\text{ROCH}_2=\text{CH}_2$  where R is aryl group (col.2, lines 13-15, 19-21, and 40-43, col.3, lines 50-62, col.7, lines 34-40, col.7, line 66-col.8, line 13, and col.10, lines 15-20).

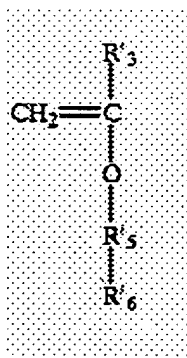
While there is no disclosure that the coating is an ink as presently claimed, applicants attention is drawn to MPEP 2111.02 which states that "if the body of a claim fully and intrinsically sets forth all the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention's limitations, then the preamble is not considered a limitation and is of no significance to claim construction". Further, MPEP 2111.02 states that statements in the preamble reciting the purpose or intended use of the claimed invention must be evaluated to determine whether the purpose or intended use results in a structural difference between the claimed invention and the prior art. Only if such structural difference exists, does the recitation serve to limit the claim. If the prior art structure is capable of performing the intended use, then it meets the claim.

It is the examiner's position that the preamble does not state any distinct definition of any of the claimed invention's limitations and further that the purpose or intended use, i.e. ink, recited in the present claims does not result in a structural difference between the presently claimed invention and the prior art coating and further that the prior art structure is capable of performing the recited purpose or intended use.

In light of the above, it is clear that Schimmel et al. anticipates the present claims.

12. Claims 1-3, 6-7, and 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Nguyen et al. (U.S. 5,990,202).

Nguyen et al. disclose ink comprising solvent and colorant encapsulated by polymer obtained from monomers of the formula:



which is identical to presently claimed formula (1) when  $\text{R}'_3$  is hydrogen,  $\text{R}'_5$  is single bond, and  $\text{R}'_6$  is aryl group, monomers such as (meth)acrylic acid, and hydrophobic monomers such as alkyl (meth)acrylates. Given that the polymer contains both hydrophobic segments and hydrophilic segments, it is clear that the polymer is amphipathic. There is also disclosed image

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forming method comprising applying the above ink to substrate (col.1, lines 10-15, col.2, lines 55-63, col.6, lines 12-45, col.11, lines 4-21, col.15, lines 49-56, col.20, line 65-col.21, line 31, col.23, lines 54-60, and col.24, lines 30-32).

In light of the above, it is clear that Nguyen et al. anticipate the present claims.

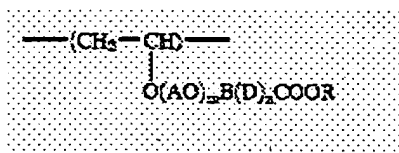
13. Claims 1, 3-5, 7, 9, and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Sato et al. '364 (U.S. 2003/0050364).

Sato et al. '364 disclose dispersible composition including ink comprising solvent, functional substance, i.e. colorant, and amphipathic block polymer having polyvinyl ether structure of the formula  $(CH_2-CH(OR^1))$  where  $R^1$  is  $(CH_2)_m-O_n-R^4$ ,  $R^4$  is phenyl,  $m$  is 1-12, and  $n$  is 1 wherein either the hydrophobic block or hydrophilic block comprises the polyvinyl ether structure. There is also disclosed image forming method comprising applying the ink to substrate to form image (paragraphs 8-11, 14-15, 19, 21, 43, 45-46, 49, 52, 59, 63 (formula I-d and I-i), 70, and 73).

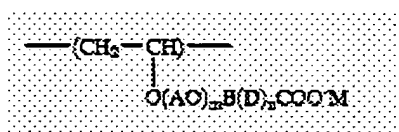
In light of the above, it is clear that Sato et al. '364 anticipate the present claims.

14. Claims 1-5 and 7-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Sato et al. '343 (U.S. 2003/0236343).

Sato et al. '343 disclose dispersible composition including ink or toner comprising medium that is solvent or binder resin, functional substance, i.e. colorant, and amphipathic block polymer comprising monomer of the formula:



or



where A is straight chain or branched alkylene group having 1-15 carbon atoms, m is 0-30, B is single bond or alkylene, D is aromatic group, n is 1-10, R is hydrogen or alkyl group, and M is mono- or poly-valent cation. The block polymer contains both hydrophobic and hydrophilic blocks. There is also disclosed image forming method comprising applying the ink to substrate to form image (paragraphs 2, 22, 25-28, 31, 84-85, 87-88, 95-86, 99-101, 105, 127-128, and 141-143).

In light of the above, it is clear that Sato et al. '343 anticipate the present claims.

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shioji et al. (U.S. 4,892,902) disclose aqueous pigment dispersion comprising polymer obtained from phenyl vinyl ether.

Pollmann et al. (U.S. 6,391,923) disclose copolymer obtained from


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$\text{CH}_2=\text{CH}-(\text{CH}_2)_n-[\text{O}-(\text{CH}_2)_k]_b-\text{X}-(\text{A}-\text{O})_m-\text{R}$  where X is O or N[(A-O)<sub>m</sub>-R] and A is alkylene group, however, there is no disclosure that R is aromatic group as required in the present claims.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Callie E. Shosho  
Primary Examiner  
Art Unit 1714

CS  
7/22/05